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THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE NOVEMBER 1989

Joe Dewey
1989 NITL Man of the Year

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Bethesda MD 20814

1989 Salary Survey

Contract Logistics Arrives

Preparing a Capital Budget

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NOVEMBER 1989

CHILTON'S
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THE TRANSPORTATION & BUSINESS LOGISTICS MAGAZINE

VOL. 88, NO. 11

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When the going gets tough, Joe Dewey has always come through. That is undoubtedly why the National Industrial Transportation League has selected Joe as its 1989 Man of the Year. Throughout his 33-year career in transportation, first with U.S. Steel and then with Kerr-McGee, Dewey's hallmark has been getting the tough jobs done.

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LOGISTICS SALARIES 1989: WHERE'S THE INCENTIVE?

According to our latest salary study from Hay Management Consultants, incentives are only at the middle and upper levels of logistics management.

A DISTRIBUTION Staff Report

Incentives are balancing out across industries and continuing to become a larger part of pay packages for middle and advanced management positions within the logistics function. But the gap between bonus practices at lower and upper levels remains wide, raising major questions about the logistics field's commitment to, or ability to fully implement, pay-for-performance programs.

These are the major findings from this year's look at the salary and bonus figures for the logistics positions contained in the compensation database of Hay Management Consultants. Hay, a worldwide firm specializing in human resources issues, maintains the largest database of job description and compensation information in the U.S. It gathers annual salary, total cash compensation and benefits data for one million jobs in 1,200 organizations.

From this database, Hay has extracted information about compensation for 20,000 logistics-related jobs in 500 organizations, reflecting pay patterns through May of 1989. The jobs include positions in traffic and transportation, distribution, warehousing, inventory control, materials management and purchasing.

Table A

COMPENSATION – LOGISTICS FUNCTION*
(in thousands of dollars)

Position	Heavy Mfg.	Light Mfg.	Chem./ Pharm.	Food & Tob.	Wholesale/ Retail
Entry professional					
Base Salary	$29.3	28.7	31.6	30.7	29.7
Total Cash	29.5	29.1	31.7	30.8	29.8
Fully qualified professional					
Base Salary	48.3	47.4	51.2	48.0	48.6
Total Cash	50.1	48.9	51.7	49.8	48.7
Seasoned professional/ Middle management					
Base Salary	75.6	71.6	81.1	73.4	68.6
Total Cash	87.3	81.7	94.5	87.3	77.8
Advanced management					
Base Salary	112.4	98.2	109.4	110.6	–
Total Cash	130.9	133.4	132.7	143.2	–
Executive/Head of Function					
Base Salary	–	–	–	141.8	–
Total Cash	–	–	–	177.1	–

Source: Hay Management Consultants
** Includes inventory control, warehousing and distribution, transportation and traffic, materials management and purchasing positions. Total cash = salary + bonuses. Blanks indicate a lack of statistically significant data.*

Caution: Database Variances

This is the second consecutive year that Hay Management Consultants has provided this special analysis of its database to DISTRIBUTION. However, *year-to-year comparisons must be limited to tracking general patterns that are reflected in the findings*, because the organizations and individual positions in the database have varied from sample to sample.

Because the database sample cannot account for regional differences or other competitive factors that determine pay levels, readers are also advised against using the figures presented here as a primary basis for setting pay levels for individual positions. Rather, this report is intended to help establish a base of general information about pay practices in the logistics field.

This year's report includes detailed pay breakdowns for two new logistics-related functions: materials management and purchasing and contracting. The analysis of incentive pay as a percentage of total cash compensation has also been expand-

continued

Table B

INCENTIVES AS A PERCENT OF TOTAL CASH COMPENSATION

Position	Heavy Mfg.	Light Mfg.	Chem./ Pharm.	Food & Tob.	Wholesale/ Retail
Logistics (Composite)					
Entry	0.68%	1.37%	0.32%	0.32%	0.34%
Fully Qualified	3.59	3.07	0.97	3.61	0.21
Seasoned	13.40	12.36	14.18	15.92	11.83
Advanced	14.13	26.39	17.56	22.77	–
Executive	–	–	–	19.93	–
Average	7.95	10.80	8.26	12.51	4.12
Materials Management					
Entry	0.67	1.37	0.32	0.64	0.33
Fully Qualified	3.48	3.25	1.34	4.63	0.78
Seasoned	13.79	10.87	15.68	16.85	12.72
Advanced	–	26.09	18.62	24.35	–
Executive	–	–	–	–	–
Average	5.98	10.40	8.99	11.62	4.61
Purchasing/Contracting					
Entry	0.71	2.05	0.31	–	5.69
Fully Qualified	3.45	2.90	0.57	1.80	–
Seasoned	11.72	15.91	11.02	15.20	21.31
Advanced	10.30	26.96	20.48	21.72	–
Executive	–	–	–	–	–
Average	6.55	11.95	8.10	12.91	13.50
Warehousing/Distribution					
Entry	1.54	1.38	0.31	1.53	–
Fully Qualified	6.35	3.28	2.28	2.44	2.79
Seasoned	–	17.81	–	–	13.81
Advanced	–	–	–	–	–
Executive	–	–	–	–	–
Average	3.95	7.49	1.29	1.99	8.30
Transportation/Traffic					
Entry	0.93	2.12	0.32	0.60	–
Fully Qualified	8.19	3.30	0.78	1.76	–
Seasoned	9.66	–	14.66	14.24	–
Advanced	–	–	–	–	–
Executive	–	–	–	–	–
Average	6.26	2.71	5.26	5.53	–
Inventory Control					
Entry	0.34	0.67	0.60	–	–
Fully Qualified	3.27	4.76	1.64	3.92	–
Seasoned	–	–	–	–	–
Advanced	–	–	–	–	–
Executive	–	–	–	–	–

Source: Hay Management Consultants

In previous years, incentives were far greater for purchasing positions than for other logistics-related functions, presumably because purchasing managers have more direct contact with outside vendors. This year's incentive data showed a closing of the gap, however, with comparable incentive opportunities also being extended to seasoned and advanced-level managers in materials management, warehousing/distribution and transportation/traffic. Within all functions, including purchasing, incentives at lower job levels remain minimal. Blanks indicate a lack of statistically significant data.

ed to include more job levels.

Explanation of the job levels used in the analysis are contained in the "Finding Your Level" box (p. 72).

A broader analysis of logistics pay trends, which included portions of the Hay/DISTRIBUTION logistics pay study, was presented in October at the Council of Logistics Management (CLM) conference in St. Louis. An audio tape of the presentation is available from the CLM.

Industry Variances

Looking first at the salary figures for the logistics function as a whole (Table A, p. 58), we note that trends continue for higher base salaries in traditional industries such as heavy manufacturing and chemical/pharmaceutical. However, total cash compensation (base plus bonus) is higher at advanced job levels in light manufacturing and in food and tobacco companies.

A look at the table showing incentives as a percentage of total cash (Table B, at left) confirms that advanced logistics positions are much more heavily leveraged toward performance in the distribution-intensive industries. For example, bonuses are shown amounting to over one-fourth of total cash pay in light manufacturing companies. However, as is described later in this analysis, the gap does seem to be narrowing somewhat, and the more capital-intensive or bulk-oriented industries also now seem to be exchanging pay for performance to a greater extent, at least at middle and upper management levels.

At the three job levels for which statistically significant data is available – entry, fully qualified and seasoned – pay for logistics positions in wholesale/retail firms lags pay for the same levels in other industries.

Job-to-Job Differences

When the aggregate totals for logistics positions are broken down to show data for specific jobs (Tables C through G), pay levels appear to be significantly higher for materials management and purchasing/con-

continued

tracting positions than for the more traditional functions (traffic/transportation, warehousing/distribution and inventory control).

Look, for example, at pay at the seasoned job level for traffic/transportation (Table C, below), materials management (Table D, below) and purchasing/contracting (Table E, p. 68). For almost all industries where sufficient data is available, both base pay and total cash are significantly higher for the latter two functions, particularly for materials management jobs.

At the seasoned level for heavy manufacturing companies, transportation/traffic positions pay an average base of $74,100 and an average bonus of $12,500. At the same level within the same industry, materials management positions pay an average base of $75,000 and an average bonus of $12,000; the total package is worth an additional 6.3 percent. And comparable purchasing/contracting positions pay an average base of $78,300 and an average bonus of $11,400; the total package is worth an additional 8.4 percent.

Table C

COMPENSATION: TRAFFIC/TRANSPORTATION
(in thousands of dollars)

Position	Heavy Mfg.	Light Mfg.	Chem./ Pharm.	Food & Tob.
Entry professional				
Base Salary	$31.9	27.7	30.7	33.0
Total Cash	32.2	28.3	30.8	33.2
Fully qualified professional				
Base Salary	52.7	49.8	50.9	50.2
Total Cash	57.4	51.5	51.3	51.1
Seasoned professional/ Middle management				
Base Salary	73.9	–	78.0	74.1
Total Cash	81.8	–	91.4	86.4

Source: Hay Management Consultants
Total cash = salary + bonuses. Blanks indicate a lack of statistically significant data.

Table D

COMPENSATION – MATERIALS MANAGEMENT
(in thousands of dollars)

Position	Heavy Mfg.	Light Mfg.	Chem./ Pharm.	Food & Tob.	Wholesale/ Retail
Entry professional					
Base Salary	$29.6	28.7	31.5	31.0	29.8
Total Cash	29.8	29.1	31.6	31.2	29.9
Fully qualified professional					
Base Salary	47.2	47.6	51.4	47.4	51.2
Total Cash	48.9	49.2	52.1	49.7	51.6
Seasoned professional/ Middle management					
Base Salary	75.0	70.5	82.3	76.5	70.0
Total Cash	87.0	79.1	97.6	92.0	80.2
Advanced management					
Base Salary	–	100.3	110.6	98.8	–
Total Cash	–	135.7	135.9	130.6	–

Source: Hay Management Consultants
Total cash = salary + bonuses. Blanks indicate a lack of statistically significant data.

Drawing a Clear Bonus Line

A notable pattern is the major gap that exists – across all industries and for all logistics functions – between lower job levels and middle and upper management positions. As shown in the table detailing incentives as a percentage of total cash (Table B, p. 62), bonuses at the fully qualified level or below are being held under 4 percent on average, and in many cases are significantly lower than that. Yet bonuses from the seasoned level on up never fall below 11 percent, and in many cases are more than double that minimum.

Again, while year-to-year comparisons must be qualified, it is interesting to note that, at the levels where bonuses are significant, variances from industry to industry appear to be evening out. While, as noted earlier, light manufacturing and food/tobacco companies still take the lead in using contingent pay to coax performance out of their logistics functions, percentages are up significantly from last year's levels for heavy manufacturing and chemical/pharmaceutical firms.

In fact, heavy industry now appears to be doing the best job of pushing incentives to lower levels. Note, for example, that bonuses in heavy manufacturing average 8.19 percent for fully qualified transportation/traffic professionals, and 6.35 percent for fully qualified warehousing/distribution professionals – by far the two largest percentages for any logistics positions at that level.

Additional Analyses

This year, two additional analyses were conducted. First, comparisons of pay for logistics jobs at various lev-

continued

els were made with overall pay at those levels within both the industrial and financial sectors, to see if logistics can be characterized as a high, low or average paying profession. Second, a regional breakdown of logistics pay was prepared, to see if the pay market for logistics postions is better in certain parts of the country.

At-Large Comparisons

When logistics pay is compared with all positions in both the industrial and financial sectors (Table H, p. 70), clear patterns emerge. At lower job levels, logistics positions are considerably higher paying compared with similar levels in the financial sector, but lower than all-industrial norms. The shortfall *vis a vis* all industrials widens when bonus pay is considered with base salaries – again indicating that logistics has been unusually slow about pushing incentives to lower-level positions.

The incentive factor works to logistics' advantage, however, when middle and upper-middle management positions are studied. At the seasoned professional level, for example, base pay for logistics positions is below the all-financial or all-industrial norm, but when incentive pay is added in both cases, logistics positions exceed the norms. At the advanced level, logistics positions are shown to be lower paying than either of the all-sector norms, but incentives lessen the difference in both cases.

At the executive level, incentives again help logistics positions fare surprisingly well. However, these indexes only represent "executive" positions comparable to the head of the logistics function, and do not include top-level positions such as heads of manufacturing or business units, CFOs, COOs or CEOs – positions where both base salaries and incentive payments can quickly dwarf those earned by the cream of the logistics crop.

Table E

COMPENSATION: PURCHASING/CONTRACTING
(in thousands of dollars)

Position	Heavy Mfg.	Light Mfg.	Chem./ Pharm.	Food & Tob.	Wholesale/ Retail
Entry professional					
Base Salary	$27.9	28.7	32.2	–	31.5
Total Cash	28.1	29.3	32.3	–	33.4
Fully qualified professional					
Base Salary	50.3	46.9	52.2	49.1	–
Total Cash	52.1	48.3	52.5	50.0	–
Seasoned professional/ Middle management					
Base Salary	78.3	74.5	79.1	71.4	76.8
Total Cash	88.7	88.6	88.9	84.2	97.6
Advanced management					
Base Salary	115.8	95.1	110.3	120.4	–
Total Cash	129.1	130.2	138.7	153.8	–

Source: Hay Management Consultants
Total cash = salary + bonuses. Blanks indicate a lack of statistically significant data.

Table F

COMPENSATION: INVENTORY CONTROL
(in thousands of dollars)

Position	Heavy Mfg.	Light Mfg.	Chem./ Pharm.	Food & Tob.
Entry professional				
Base Salary	$29.4	29.6	33.0	–
Total Cash	29.5	29.8	33.2	–
Fully qualified professional				
Base Salary	50.3	46.0	53.9	56.3
Total Cash	52.0	48.3	54.8	58.6

Source: Hay Management Consultants
Total cash = salary + bonuses. Blanks indicate a lack of statistically significant data.

Regional Breakdowns

If your're just entering the logistics profession and are willing to relocate, the operative directions seems to be South or West. If you want to assure yourself of better-than-average pay no matter what level of logistics job you have, think about sinking down roots in Louisiana, Oklahoma or Texas.

These are the primary findings when base pay in logistics is studied on a regional level (Table I, p. 70). Entry-level positions appear to pay best in the South Central regions, with West Central and West region states also offering above-par starting pay. The South Central's edge dwindles at the fully qualified and seasoned levels, where pay is relatively even across the board. At the advanced level, however, South Central and Southeast companies appear to be clearly paying a premium for logistics talent.

When bonuses (not shown in the table) are added to the regional mix, some additional findings of interest emerge. For example, while data on

continued

Table G

COMPENSATION: WAREHOUSING/DISTRIBUTION

(in thousands of dollars)

Position	Heavy Mfg.	Light Mfg.	Chem./ Pharm.	Food & Tob.	Wholesale/ Retail
Entry professional					
Base Salary	$31.9	28.5	32.2	32.1	–
Total Cash	32.4	28.9	32.3	32.6	–
Fully qualified professional					
Base Salary	51.6	47.2	51.5	51.9	45.3
Total Cash	55.1	48.8	52.7	53.2	46.6
Seasoned professional/ Middle management					
Base Salary	–	72.9	–	–	67.4
Total Cash	–	88.7	–	–	78.2

Source: Hay Management Consultants

Total cash = salary + bonuses. Blanks indicate a lack of statistically significant data.

Table H

LOGISTICS VS. JOBS AT LARGE

(Logistics Pay = 100)

	All Financial Sector Positions		All Industrial Sector Positions	
Job Level	**Base**	**Base + Bonus**	**Base**	**Base + Bonus**
Entry	80	80	105	106
FQ Prof.	90	91	102	104
Seasoned	103	98	102	104
Advanced	108	104	104	103
Executive	113	98	98	96

Source: Hay Management Consultants

Table I

LOGISTICS BASE PAY: REGIONAL BREAKDOWNS

(National Avg. = 100)

Job Level	NE	SE	E. Cen.	S. Cen.	W. Cen.	West
Entry	96	97	98	111	101	103
FQ Prof.	97	97	101	103	97	96
Seasoned	102	100	101	100	94	97
Advanced	99	107	95	118	94	–
Executive	97	–	96	–	100	–

Source: Hay Management Consultants

Blanks indicate a lack of statistically significant data.

Regional definitions:

Northeast – CT, DE, DC, ME, MD, MA, NH, NJ, NY, E. PA, RI, VT, VA
Southeast – AL, FL, GA, MS, NC, SC, TN
East Central – KY, N. IL, IN, S. MI, OH, W. PA, WV, S. WI
South Central – LA, OK, TX
West Central – AR, S. IL, IA, KS, N. MI, MN, MO, NE, ND, SD, N. WI
West – AZ, CA, CO, ID, MT, NV, NM, OR, UT, WA, WY

pay for logistics executives is spotty, the data that is available shows that heads of the function in some regions are clearly being leveraged more than others. Where logistics executives in the Northeast rank below normal when just base salaries are considered, their pay when bonuses are included rises to 106 on the scale of 100. Conversely, executive pay in the East Central region becomes even less competitive – from 96 to 93 – when incentives are added.

Incentives are also responsible for widening the advantage that advanced-level professionals appear to enjoy in the South Central region. When bonuses are added, that region earns a 127 on the scale of 100. Remember, however, that these indexes are based strictly on pay practices for the most recent reporting period (May 1988-May 1989). It may be that unusually large or one-time bonuses were earned by logistics managers in that region during that period, because of special programs within certain companies. It remains to be seen whether the sizeable pay advantage can be sustained on a year-to-year basis.

Geography is only one factor in determining how companies set pay scales for logistics positions. Perhaps the strongest influence of all is corporate culture. Many companies simply have a compensation history that defies logical explanation. Some companies have always paid well, and others have always paid at the low end of the scale. If change is needed in these organizations to spur sales, enhance quality, or improve productivity, it is unlikely that pay will be used as the primary vehicle of that change. Rather, the pay policies of these organizations can usually be expected to hold firm in the midst of all other change; their cultures breed the attitude: "This is the way we pay."

Beyond the influence that the overriding culture of a company can have on pay, the culture is very much of an influence on the status of logistics departments within that compa-

continued

ny. Is logistics seen as a contributor to profit, or just a cost center? Is it stagnant or even dwindling, with many of its services being contracted out? Is logistics an area where the company is making significant investments and technological advances, or does it have a bureaucratic role? Where is logistics positioned within the organization structure, and how does it fit in operationally and strategically? Do the top logistics managers have the ears of key corporate decision-makers, or are they really nothing more than glorified order takers and box kickers?

The answers to these kinds of culture- and structure-related questions can provide real clues as to why logistics pay seeks the level it does in selected units, companies or industries. For logistics, too, the pay issue can quickly boil down to: "This is the way we pay *logistics* people – end of discussion."

Closely related to the role of culture is the positioning of a company, and its logistics function, in the production-to-market chain. Studies of the Hay database, have indicated that companies that are closer to the consumer tend to pay higher than those that are closer to the production end. That's why a smaller food distribution company might pay more for an inventory manager than a large agricultural co-op.

Most likely, the same pattern should hold for logistics positions from industry to industry, company to company, and even within the same company.

Some industries and companies are also clearly more distribution-intensive than others, and one can certainly expect this to be an influence on pay, just as in professions that are particularly critical or in high demand. Studies of the Hay database have shown that utilities and petroleum companies must always pay at high levels to attract the best engineers, even when regulations and other outside influences may keep their financial performance low.

The presence, on average, of such a well defined gap between bonuses for lower and middle/upper logistics positions would seem to indicate that the industry is still struggling as it seeks to establish performance-based pay programs at lower levels. More than likely, the hangup continues to be an organization's difficulty in establishing, on either a group or individual basis, proper measurement standards for lower-level jobs (*Are You Prepared to Perform?*, January 1989, p. 64). ■

FINDING YOUR LEVEL

The Hay Group/DISTRIBUTION study of compensation and benefit practices in the logistics profession divided positions into five job levels, according to the definitions below.

Caution: In a profession known for proliferation and broad overlap of titles, the "typical titles" provided for each definition may not be analogous with those used in your organization. Definitions above the second level must be examined carefully, as job content will vary dramatically according to the way a particular organization defines a logistics department's size, complexity and importance.

Entry Professional – Typically filled by incumbents with a college degree or equivalent and less than one year of work experience. Assignments are usually designed to provide exposure to the organization and/or the function, are relatively short-term, and are reviewed frequently for progress toward end results. In the logistics field, typical entry-level titles include buyer, inventory control analyst, expeditor, rate analyst, shipping clerk, and traffic coordinator and administrator.

Fully Qualified Professional – At this level, incumbents are expected to be able to handle 80 to 90 percent of work assignments without close supervision or direction. Incumbents routinely try to solve problems by applying theories and policies of the discipline. Judgments are supported by the equivalent of a college degree and three to five years of relevant work experience. In the logistics field, typical fully qualified professional titles include: inventory control specialist, customer service manager and traffic/transportation manager.

Seasoned Professional/Middle Management – Incumbents at this level are highly seasoned professionals, resulting from the equivalent of a college degree and seven or more years of relevant experience in the discipline. Incumbents are given broad direction on large projects, and are often called upon to discuss problems. The upper end of this level also includes first- or second-level managerial positions accountable for achieving results through a subordinate staff. In the logistics field, typical seasoned professional/middle management titles include: warehouse/DC manager, superintendent of inventory control, purchasing manager, materials manager, fleet manager and distribution manager.

Advanced Management – Typically, this level includes the head of a major functional area or discipline who is accountable for integrating several areas of technical knowledge/endeavor and achieving results through a subordinate staff. In the logistics field, typical advanced management titles include: director of transportation/distribution, director of warehouse operations, procurement director, director of fleet operations and director of logistics.

Executive/Head of Function – This top-level postion has direct access to corporate management and multifunctional responsibilities. In logistics, typical executive titles include: executive vice president of logistics, vice president of transportation and vice president of materials management.

LOGISTICS CAREERS: A VIEW OF THE FUTURE

This year's CLM career patterns survey finds logistics maturing as a discipline and becoming more established in the corporate framework.

By James M. Masters, Assistant Professor, and Bernard J. LaLonde, Mason Professor of Transportation & Logistics, Ohio State University

Figure 1

LOCATION OF THE LOGISTICS FUNCTION IN THE ORGANIZATION

Department	Respondent	Superior	Next Higher Superior
Logistics	65%	22%	7%
Operations	8%	13%	6%
Division	10%	17%	16%
Marketing	7%	15%	3%
Production	2%	9%	5%
Other	5%	5%	2%
Corporate	3%	19%	61%

Figure 2

DIMENSIONS OF THE LOGISTICS FUNCTION

Dimension	Logistics Activity	Direct Responsibility	Time Spent
Traffic Management	98%	78%	21%
Warehousing	97%	76%	17%
Inventory Management	81%	61%	13%
International Distribution	83%	69%	9%
Plant & Warehouse	73%	67%	9%
Order Entry	68%	51%	10%
Packaging	51%	23%	4%
Procurement	49%	35%	10%
Product Planning	36%	33%	7%
Sales Forecasting	32%	17%	5%
General Management	–	–	24%
Other	–	–	18%

For the last 18 years, the Logistics Research Group at Ohio State University has conducted an annual survey of the career patterns of senior logistics executives in major American corporations.

The purpose of this work is to establish baseline information about the status of logistics as a profession, as well as to gain an understanding of how the logistics function is integrated into the organizational structure of the firm, and to determine the specific responsibilities of the logistics executive. In recent years the scope of the survey has been broadened to gather logistics executives' opinions about future trends in logistics practice.

Specifically, this year's survey sought to answer these questions:

- What is the demographic profile of the successful logistics executive?
- How are logistics functions structured, organized and managed within the successful firm?
- What knowledge, skills and specific competencies are expected of the entry-level, college graduate management trainee entering the logistics field today?

Respondents were asked to categorize the firm's organization of the logistics function. In 18 percent of the firms, a logistics department existed in each division; 37 percent reported that the logistics organization was centralized. Another 33 percent reported that logistics functions were split, with some performed by divisions and some by a central staff.

continued

Respondents were asked whether they considered their job to be primarily line or staff in nature, that is, whether they had direct responsibility and control over logistics decision-making or whether their job was primarily advisory. Forty-six percent replied that the job involved direct responsibility, while only 6 percent saw their role as purely advisory. The remaining 48 percent reported that the job included direct responsibility over some logistics functions and advisory responsibility for others.

In an attempt to gauge the maturity of the logistics organization, we asked in what year the firm first appointed a senior executive-level manager with a formal job title and responsibility in the distribution or logistics area. Since 1980, firms have established such a position at a rate of about 6 percent per year; 19 percent report that their firm has not yet done so.

In 65 percent of all cases, the survey respondent is assigned to a department or section that is named *Logistics* or *Distribution* (Figure 1, p. 76). Eight percent work in *Operations,* and 10 percent are attached to a product *Division.* In 22 percent of all cases, the respondent's superior is assigned to a *Logistics* department. In 61 percent of all cases, the respondent's next higher superior (the respondent's superior's superior) is located at the *Corporate* level.

Many different variations of hierarchical structure were reported within this simple framework. One common arrangement, for example, was a Director of Logistics in charge of a Logistics Division who reported to a corporate vice president or president. Another typical situation would be a Distribution Manager of a Distribution Department who reported to the Director of Operations of the Operations Division, who in turn reported to the CEO or the Chairman of the Board.

Thirty-seven percent of our respondents had the job title of manager, 41 percent were directors and 22 percent were vice presidents. In 56 percent of all cases, the respondent's next higher superior was the President or Chairman of the Board.

In an attempt to measure the scope of the logistics function, respondents were presented with a list of logistics activities (Figure 2, p. 76) and asked to specify if the activity was considered to be a logistics function by the firm, if the respondent had direct responsibility for the activity, and how much time the respondent spent in the activity. Traditional logistics functions, such as traffic management and warehousing, are almost universally viewed as part of the logistics domain. Yet only 36 per-

continued

Figure 3

LOGISTICS EXECUTIVE COMPENSATION
(median salary plus bonus)

JOB TITLE	HIGHEST THIRD	MIDDLE THIRD	LOWEST THIRD	ANNUAL RAISE
Manager	$ 85,000	$ 65,000	$48,000	6%
Director	106,000	80,000	65,000	8%
Vice President	150,000	105,000	78,000	5%

Figure 4

HISTORICAL COMPENSATION COMPARISON

Year	Manager	Director	Vice-President
1989	$65,000	$80,000	$105,000
1988	57,000	75,000	122,000
1987	60,000	74,500	107,400
1986	–	–	–
1985	55,500	72,400	106,400
1984	54,800	70,800	93,900
1983	49,300	58,500	85,600

Figure 5

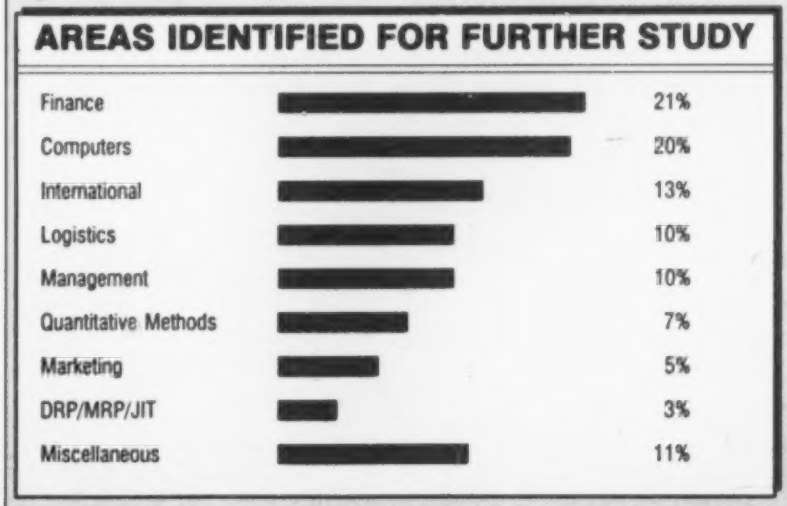


Figure 6

ENTRY LEVEL SKILL REQUIREMENTS

Skill Area	Degree of Proficiency Expected										
	None	Basic Familiarity			Good Working Knowledge				Well Developed Expertise		
	0	1	2	3	4	5	6	7	8	9	10
MICROCOMPUTERS											
Spread-sheet programs							B		M		
Data base programs						B	M				
Graphics packages					B		M				
Traditional programming			B	M							
Expert systems shells			B	M							
INFORMATION TECHNOLOGY											
MRP/MRP II						B		M			
DRP						B		M			
EDI						B	M				
Bar coding					B		M				
Inventory control							B	M			
MANAGEMENT SKILLS											
Supervision						B	M				
Negotiation						B	M				
Writing								B		M	
Speaking								B		M	
Analytic ability							B		M		

Figure 7

FACTORS WHICH WILL INFLUENCE THE DEVELOPMENT OF THE LOGISTICS FUNCTION IN THE NEXT DECADE

Factor	Response
Cost Control	17%
Customer Service	16%
EDI & Information Technology	15%
Global Logistics	10%
Corporate Growth	8%
Improved Logistics Controls	6%
Integration of Logistics Functions	5%
Corporate Recognition	4%
Personnel Issues	4%
JIT	4%
All Others	11%

cent of these executives worked on product planning, and only 32 percent were involved in demand forecasting. General management tasks, such as supervision and administration, consumed 24 percent of most executives' working day.

Executives were asked to report their total annual cash compensation, including bonus. These results are shown by job title in Figure 3, p. 80. The statistics reported are median values for the highest, middle and lowest third of each job category. Statistical analyses were performed to determine which factors might help to predict a respondent's salary level. Age, years in the position, and so forth, show no statistically significant relationship to compensation. Level of responsibility is the single most important predictor of compensation. The executive's budget responsibility and the firm's sales volume also help to predict the executive's salary level. (For more details on logistics compensation trends, see *Logistics Salaries 1989: Where's the Incentive?*, p. 58).

A comparison of this year's compensation data to that of prior year's studies is shown in Figure 4, p. 80. Data from 1986 is not included because the sample of executives studied in that year was not comparable.

Survey participants were asked a series of questions to capture their forecasts about the future of logistics. First, respondents were asked to identify topics they would study if they could return to school for three months. The results are similar to those reported over the last few years (Figure 5, p. 80). Finance and computers once again were dominant responses. It is also worth noting that *Management* was high on the list. This area included executives who wanted to polish their communication skills and their ability to work with, motivate and negotiate with people.

Next, executives were asked to define the nature and extent of the skills they require in newly hired management trainees (Figure 6, p. 82). Capabilities in microcomputer

continued

literacy, information technology and general management were described. Respondents chose a number from zero to 10 that best described the degree of proficiency expected of a new graduate of a bachelor program in business administration with a major in logistics (B), and also of a new MBA in logistics (M). A zero indicates that no proficiency in the area is expected, while a 10 means that well developed expertise is expected.

In the microcomputer area, spreadsheet programs are almost universally recognized as required tools for the entry-level manager. Database management software and graphics packages are not far behind. Skills in programming languages, like BASIC or COBOL, and artificial intelligence are viewed as areas where only basic familiarity is needed.

Good working knowledge of information technology is expected. MRP and DRP should be very familiar to the job candidate. EDI and automatic identification should also be well understood. Interestingly, traditional inventory concepts, such as economic order quantity, received the highest ratings here.

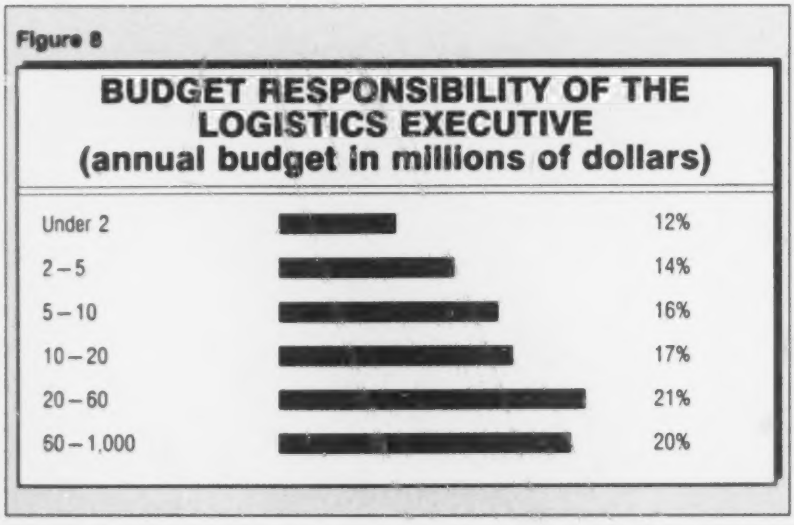
Noteworthy about respondents' expectations regarding general management abilities are the high ratings given to writing and speaking skills, and general analytic and problem-solving abilities. Logistics executives are looking for technically literate managers, but they stress the need for interpersonal skills and analytic thinking to deal with the problems logistics managers face.

Finally, respondents were asked to identify two major factors that would influence the growth of the corporate logistics function in the next decade (Figure 7, p. 82). There was great variety in the responses here; however, 17 percent identified *Cost Control*, and 16 percent identified *Customer Service*. *Corporate Recognition* indicates respondents who feel that future growth of the logistics function in their firm will depend upon their success in convincing senior management of the value of adopting an integrated approach to the management and control of logistics activities. *Integration of Logistics Functions* includes respondents who feel their logistics functions must be more closely integrated with other areas, such as marketing and production, or that logistics must incorporate new activities, such as purchasing, into its responsibility.

Respondents were asked to specify their total logistics budget responsibility, including payroll and services. The average figure reported was $17 million, but budgets vary greatly (Figure 8, left). Twelve percent reported budgets under $2 million, but 20 percent controlled budgets in the $60 million to $1 billion range. ■

For details on the methodology and other results of the Ohio State study, contact Professor James M. Masters at (614) 292-0797.

Figure 8



CONCLUSIONS AND IMPLICATIONS

• **Logistics career patterns remain stable.** This year's survey once again reveals a large body of experienced logistics practitioners who are carving out successful careers in logistics.

• **Logisticians expect a more complex world ahead.** External forces, such as globalization and mergers and acquisitions, are complicating life for the logistician. Changing technology, especially information technology, will create both challenges and opportunities for logistics management.

• **Logistics requires a mix of technical and interpersonal skills.** Senior management clearly recognizes that technical skill alone will not lead to success in the future. The ability to recognize problems, devise solutions and communicate ideas will remain the hallmark of the successful logistician.